

PATENT

INSTITUT FRANÇAIS DU PÉTROLE

PROCESS FOR THE SELECTIVE HYDROGENATION OF POLYUNSATURATED  
COMPOUNDS TO MONOUNSATURATED COMPOUNDS USING A HOMOGENEOUS  
CATALYST

Inventors: Gérard HILLION, Laurent SAVARY, David PRORIOL,  
Christophe GAUTREAU, Denis UZIO and Hélène OLIVIER-BOURBIGOU

A B S T R A C T

A process for the selective hydrogenation of diolefinic compounds to mono-olefinic compounds uses a catalyst composition comprising at least one salt of a transition metal from groups IB, IIB, VB, VIB, VIIB and VIII of the periodic table, at least one ligand and at least one organometallic reducing agent, optionally in the presence of a non-aqueous ionic liquid selected from the group formed by liquid salts with general formula  $Q^+A^-$  (in which  $Q^+$  represents a quaternary ammonium and/or quaternary phosphonium and  $A^-$  represents any anion which can form a liquid salt below 90°C).